

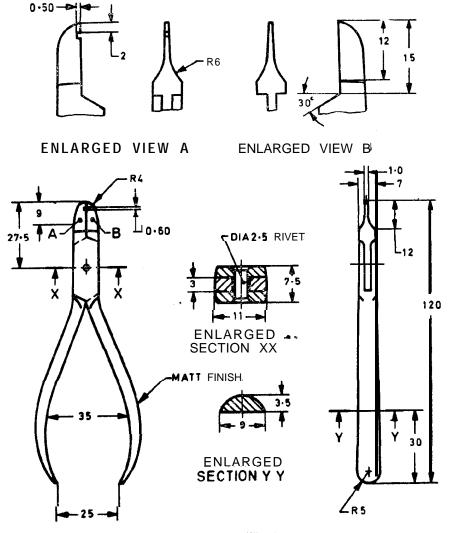
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Indian Standard

SPECIFICATION FOR PLIERS, ANGLE RIBBON ARCH WITH GROOVE, DENTAL

- **1. Scope** Covers dimensions and other requirements for angle ribbon arch pliers with groove used in dentistry.
- 2. **Material** Pliers shall be made of tool steel conforming to Designation **T80** of Schedule VI of **IS:1570(** Part V)-1972' Schedules for wrought steels for general engineering purposes 'or stainless steel conforming to Designation 30Cr13 of IS: 6603-1972' Specification for stainless steel bars and flats'.
- 3. Shape and Dimensions As shown in Fig. 1.



All dimensions in millimetres.

FIG. 1 PLIERS, ANGLE RIBBON ARCH WITH GROOVE, DENTAL

3.1 A deviation of \pm 2'5 percent shall be allowed on all dimensions.

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4. Workmanship and Finish

- 4.1 The two halves of the pliers shall move freely about the joint without any play. The movement shall be even and the jaws shall register accurately.
- 4.2 The pliers shall be free from rough edges, pits, burrs, cracks and other surface defects. The edges shall be rounded.
- 4.3 The surfaces of the pliers shall be finished smooth except the outside surfaces of the handles which shall have matt finish.
- 4.4 Joint shall be box type conforming to 6 of IS: 3642-1966 'General requirements for surgical instruments'. The ends of the pin in the joint shall be finished flush with the surfaces.
- 4.5 The tool steel pliers shall be plated chromium over nickel and the plating shall conform to Service Grade No. 2 of IS: 1068-1968 'Specification for electroplated coatings of nickel and chromium on iron and steel (first revision)'.
- 4.6 Stainless steel pliers shall be polished bright and passivated.
- 5. Heat Treatment The pliers shall be uniformly hardened and tempered to give a hardness of 370 to 430 HV.

6. Tests

- 6.1 Corrosion Resistance The pliers shall show no sign of corrosion when tested in accordance with IS: 7531-4975' Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments'.
- 6.2 Performance An orthodontic hard steel wire of 0.5 mm diameter shall be bent 20 times. On completion of the test, when examined under the microscope at magnification of 20 X, there shall not be any damage to the working parts of the pliers.
- 7. Marking Each plier shall be legibly and indelibly marked with the manufacturer's name, initials or registered trade-mark; the letters 'SS' in case of pliers made of stainless steel; and the country of manufacture.
- 7.1 Certification Marking Details available with the Bureau of Indian Standards.
- 8. Packing The pliers shall be put either in a polyethylene bag or wrapped in wax paper and shall then be packed in cartons in accordance with the current trade practice. The cartons shall bear the name of the pliers; manufacturer's name, initials or registered trade-mark; and the country of manufacture. The pliers may also be packed as agreed to between the purchaser and the supplier.